ANNUAL REPORT
OF
THE PUBLIC PRINTER

For The Fiscal Year Ended
JUNE 30, 1940

THE ANNUAL REPORT OF THE

PUBLIC PRINTER

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For the Fiscal Year Ended

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INDEX

Annual Report of the Public Printer
Fiscal Year Ended June 30, 1940

The Public Printer addressed the following letter to the members of the Joint Committee on Printing under date of March 24, 1941:

Sir:

Under date of September 19, 1940, the Public Printer addressed the following letter to the Chairman of the Joint Committee on Printing:

"Sir:

"As you are probably aware, there is included in the Act making appropriations for the Legislative Branch of the Government for the fiscal year 1940, a proviso which reads as follows:

> 'In order to keep the expenditures for printing and binding for the fiscal year 1941 within or under the appropriations for such fiscal year, the heads of the various executive departments and independent establishments are authorized to discontinue the printing of annual or special reports under their respective jurisdictions; Provided, That where the printing of such reports is discontinued the original copy thereof shall be kept on file in the offices of the heads of the respective departments or independent establishments for public inspection.'

"In view of the tremendous pressure of work in the Office at this time, both from the administrative and the production standpoints, it is proposed to take advantage of the above paragraph and to eliminate the printing of the Public Printer's Annual Report for the fiscal year 1940. This is with the understanding, of course, that the information usually carried therein will be prepared and kept on file in this Office for

the purpose of ready reference in supplying the Joint Committee on Printing or the other members of Congress with any information which they may desire.

"The highlights of the Report will, as usual, be presented during the hearings on the appropriation bill and will thus be available in printed form for the members of Congress who desire the same. The Office will save approximately $1,500 by theelimination of the Report and in view of conditions at this time, it is recommended that its discontinuance under the authority cited in the above Act be approved".

This was approved by the Joint Committee on Printing in their letter dated September 23, 1940, which reads as follows:

"Sir:

"The Joint Committee on Printing interposes no objection to withholding the printing of the Public Printer's Annual Report for the fiscal year 1940 provided that the proviso in the Legislative Appropriation Act for the fiscal year 1940 is complied with."

In view of the authority granted in the above the printing of the Report was discontinued. However, as it is believed that you as a member of the Joint Committee on Printing would be interested in the matter usually contained therein, the attached, which is a copy of the original on file in this Office, has been prepared for your information.

If there is any further explanation you may desire in connection with any of the matter referred to in the Report, I shall be glad to furnish the same.

Respectfully,

Public Printer.

RECEIPTS AND EXPENDITURES

The total resources available to the Government Printing Office during the fiscal year ended June 30, 1940, including the Office of the Superintendent of Documents and appropriations and payments for work, amounted to $22,691,977.59, as compared with $20,566,023.68 for the fiscal year 1939, an increase of $2,125,953.91.

Obligations incurred during the fiscal year 1940 totaled $22,573,259.83, leaving an unobligated balance of $118,717.76 subject to overadjustments or underadjustments on $3,140,255.41 on July 1, 1940. Obligations incurred in 1940 showed an increase of $2,077,104.12 over those for 1939.

The total compensation paid to all employees, including those of the Office of the Superintendent of Documents, during the fiscal year 1940, amounted to $12,970,387.73, which total included $436,682.16 deposited to the credit of employees in the retirement fund through the 3½% deduction as required by law.

Table 1 gives the details of all resources available to the Government Printing Office for the fiscal year ended June 30, 1940, and all liabilities incurred against these resources during the fiscal year.

Table

Appropriation for

Deficiency Act, a

Deficiency Act, a

Repayments from a

Table 1.--Resources and liabilities under appropriations for the fiscal year ended June 30, 1940.

Resources

Appropriation for working capital, legislative act approved June 16, 1939	$3,685,000.00	
Deficiency Act, approved June 25, 1938. Pub. #723, 75th Cong	450,000.00	
Deficiency Act, approved June 27, 1940. Pub. #663, 76th Cong	415,000.00	
Repayments from all sources for printing and binding	14,669,138.64	
Payments from various sources	23,426.86	
Bills receivable July 1, 1940, for printing and binding furnished	2,476,982.09	
		$21,719,547.59
Appropriation for salaries, Office of Superintendent of Documents		665,000.00
Deficiency Act, approved Aug. 9, 1939. Pub. #361, 76th Cong		35,000.00
Appropriation for general expenses, Office of Superintendent of Documents		272,430.00
Total resources available for fiscal year 1940		22,691,977.59

Liabilities

Working capital and repayments for printing and binding:		
Disbursed to June 30, 1940	$17,254,625.87	
Outstanding obligations July 1, 1940	2,989,489.96	
Total disbursed and outstanding obligations		20,244,115.83
Salaries, Office of Superintendent of Documents:		
Disbursed to June 30, 1940	664,535.43	
Outstanding obligations July 1, 1940	30,475.62	
Total disbursed and outstanding obligations		695,011.05
General expense, Office of Superintendent of Documents:		
Disbursed to June 30, 1940	151.990.17	
Outstanding obligations July 1, 1940	120,289.83	
Total disbursed and outstanding obligations		272,280.00
Total disbursed to June 30, 1940	18,071,151,47	
Total outstanding obligations July 1, 1940	3,140,255.41	
Outstanding obligations Code of Federal Regulations-Pub. 723-75th Cong	261,852.95	
Outstanding obligations returnable to U. S. Treasury (Working capital)	1,000,000.00	
Outstanding obligations returnable to U. S. Treasury (Code of Federal Regulation)	100,000.00	
Total disbursed and outstanding obligations		22,573,259.83
Unobligated balances (subject to 10 percent over or under on outstanding orders)		118,717.76
Total		22,691,977.59

Table 2 is a summary statement showing all financial transactions during the fiscal year ended June 30, 1940, covering appropriations made for the fiscal years 1938, 1939 and 1940. This statement also gives a summary of all expenditures for various items during the fiscal year 1940, regardless of the appropriation from which paid, together with a recapitulation of disbursements by major items.

Table 2.--Summary of financial transactions in fiscal year ended June 30, 1940, covering appropriations for fiscal years 1938, 1939 and 1940.

Appropriation for 1938	Resources	Disbursements	Unexpended balance on July 1, 1940 from the Appropriation for 1938
Public Printing and Binding:			
Unexpended balance July 1, 1939	$69,882.45		
Credits to appropriation by payments from all sources for printing and binding and other receipts from miscellaneous sources	12,578.54		
Disbursed for material and supplies		$74,670.94	
Total	82,460.99	74,670.94	7,790.05
Salaries, Office of Superintendent of Documents:			
Unexpended balance July 1, 1939	3,200.15		
Refund	13.34		
Total	3,213.49		3,213.49
General expense, Office of Superintendent of Documents:			
Unexpended balance, July 1, 1939	... ..	... ..	... ..
Grand total appropriations	85,674.48	74,670.94	11,003.54
Unobligated balance of 1938 appropriations on June 30, 1940			11,003.54

Appropriation for 1939	Resources	Disbursements	Unexpended balance on July 1, 1940 from the Appropriation for 1939
Public Printing and Binding:			
Unexpended balance, July 1, 1939	2,185,714.35		
Credits to appropriation by payments from all sources for printing and binding and other receipts from miscellaneous sources	1,152,527.34		
Disbursed for labor		502,804.94	
Disbursed for paper		883.404.75	
Disbursed for lithographing and engraving		63,839.43	
Disbursed for material and supplies		367,085.83	
Disbursed for Surplus Fund		1,000,000.00	
Total	3,338,241.69	2,817,134.95	521,106.74
Salaries, Office of Superintendent of Documents:			
Unexpended balance, July 1, 1939	35,276.57		
Disbursed		27,776.13	
Total	35,276.57	27,776.13	7,500.44
General expense, Office of Superintendent of Documents:			
Unexpended balance, July 1, 1939	60,470.85		
Disbureed		58,140.34	
Total	60,470.85	58,140.34	2,330.51
Grand total appropriations	3,433,989.11	2,903,051.42	530,937.69
Deduct for outstanding obligations			461,245.64
Unobligated balance of 1939 appropriations on June 30, 1940			69,692.05

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(1) Incl

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(3) Incl

Table 2.— Summary of financial transactions in fiscal year ended June 30, 1940, covering Appropriations for fiscal year 1938, 1939 and 1940. - Continued.

RECAPITULATION--ALL APPROPRIATIONS

Total paid for labor.....(1)..	$12,256,557.52
Total paid for material and supplies.....	1,653,996.84
Total paid for lithographing and engraving.....	107,406.40
Total paid for paper.....	5,226,471.00
Total paid for printing and binding.....	19,146,431.76
Total paid for salaries, Office of Superintendent of Documents.....(2).	692,311.56
Total paid for General Expense, Office of Superintendent of Documents.....	210,130.51
Total disbursements.....	20,048,873.83
Total credited to Code of Federal Regulations.....	261,852.95
Total credited to Surplus Fund.....	1,000,000.00
Total credited to Surplus Fund.....	100,000.00
Grand total.....(3)..	21,410,726.78

(1) Includes $396,870.79 deposited to credit of retirement fund.

(2) Includes $22,243.83 deposited to credit of retirement fund.

(3) Includes $419,114.67 deposited to credit of retirement fund.

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Table 2.--Summary of financial transactions in fiscal year ended June 30, 1940 covering appropriations for fiscal years 1938, 1939 and 1940-Continued.

Appropriation for 1940

	Resources	Disbursements	Unexpended balance July 1, 1940
Public Printing and Binding:			
Legislative act of June 16, 1939	$5,685,000.00		
Deficiency Act of June 23, 1938	430,000.00		
Deficiency Act of June 27, 1940	413,000.00		
Credits to appropriations by payments and bills receivable from all sources for printing and binding and other receipts from miscellaneous sources	17,169,547.59		
Disbursed for labor		$11,753,752.58	
Disbursed for paper		4,343,066.23	
Disbursed for lithographing and engraving		43,366.27	
Disbursed for materials and supplies		1,114,240.07	
Total	21,719,547.59	17,254,625.87	4,464,921.72
Salaries, Office of Superintendent of Documents:			
Legislative act of June 16, 1939	665,000.00		
Deficiency act of Aug. 9, 1939/	35,000.00		
Disbursed		664,535.43	
Total	700,000.00	664,535.43	35,464.57
General expense, Office of Superintendent of Documents:			
Legislative act of June 16, 1939	272,430.00		
Disbursed		151,990.17	
Total	272,430.00	151,990.17	120,439.83
Grand Total	22,691,977.59	18,071,151.47	4,620,826.12
Deduct for outstanding obligations			4,502,108.36
Unobligated balances of 1940 appropriations on June 30, 1940			118,717.76
Total unobligated balance, subject to change by 10 percent over and under on outstanding obligations:			
1938			11,003.54
1939			69,692.05
1940			118,717.76
Total			199,413.35

Table 3 is a statement of all moneys received during the fiscal year ended June 30, 1940, by the Disbursing Clerk as repayments for printing and binding for the several executive departments and independent Government establishments, and from the sale of waste paper and other waste materials, and the appropriation to which deposited. The receipts from these various sources during 1940 totaled $15,999,706.16, as compared with $15,920,079.85 in 1939, an increase of $79,626.31.

TABLE #3

1937		
Deposited to the credit of appropriation for public printing and binding:		
Refund	44.79	
Balance of appropriation	12,559.15	12,603.94
1938		
Deposited to the credit of appropriation for public printing and binding:		
For printing & binding for departments	11,083.11	
Refund	18.25	
Balance of appropriation	56,072.48	67,173.84
1939		
Deposited to the credit of appropriation for public printing and binding:		
For printing & binding for departments	1,120,536.75	
Miscellaneous printing & binding	683.01	
Refunds	25,030.71	
Balance of appropriation	395.40	1,146,645.87
1940		
Deposited to the credit of appropriation for public printing and binding:		
For printing & binding for departments	14,580,396.20	
Miscellaneous printing & binding	108,569.92	
Refunds	23,030.37	
Crating	37.38	14,712,033.87
1939		
Deposited to the credit of appropriation for salaries, Superintendent of Documents		
Refunds	42.42	
Balance of appropriation	7,284.03	7,326.45
1940		
Deposited to Miscellaneous receipts		
Sale of Waste Paper	49,139.62	
Sale of Salvage	4,772.62	
Telephone messages	9.95	53,922.19
Grand Total		15,999,706.16

Table 4 is a comparative statement by major items for the fiscal years 1938, 1939 and 1940. While a few items show a decrease in 1940 as compared with 1939, the majority show substantial increases.

The number of actual impressions increased 38,548.352. The number of postal cards printed increased 145,487,820. Other principal increases are: sheets folded 132,563,120; signatures gathered, 67,808,531; copies covered 1,662.770; signatures sewed, 16,773,634; copies punched and drilled, 39,685,562; tablets made, 1,070,186. Electrotypes, stereotypes and matrices made in 1940 show an increase of 3,457,639 square inches over those for 1939. The number of bills computed during 1940 shows an increase of 19.325 over the previous year.

Table 4. Prod

Main Office and Co
Total charges
Jackets writt
Estimates mad
Bills compute
Electrotypes,
Postal cards
Money orders
Actual impres
Sheets folded
Signatures ga
Tips made....
Copies wire-s
Books rounde
Copies cover
Stamping imp
Books cased-
Books indexe
Sheets passe
Signatures s
Copies punch
Lines perfor
Tablets made
Miscellaneou

Table 4. Production of principal items entering into Printing and binding in fiscal years 1938, 1939, 1940

Item		1938	1939	1940
Main Office and Congressional Library Branch:				
Total charges for printing and binding		$17,959,316.06	$18,238,045.10	$20,150,203.72
Jackets written	number	80,106	82,633	83,939
Estimates made	do	58,058	61,798	60,164
Bills computed	do	95,594	97,688	117,013
Electrotypes, stereotypes and matrices	square inches	13,468,121	12,208,393	15,666,032
Postal cards printed	number	2,240,766,100	2,136,042,180	2,281,530,000
Money orders shipped	do	262,511,860	261,804,697	267,963,430
Actual impressions	do	1,141,090,031	1,155,503,148	1,194,051,500
Sheets folded	do	679,169,095	646,236,555	778,799,675
Signatures gathered	do	290,812,096	250,061,724	317,870,255
Tips made	do	43,306,901	36,188,755	33,932,742
Copies wire-stitched	do	78,948,103	91,346,895	83,926,384
Books rounded and backed	do	1,762,762	1,648,732	1,632,633
Copies covered	do	14,810,426	16,273,119	17,935,889
Stamping impressions	do	1,987,470	2,123,869	2,198,690
Books cased-in	do	1,146,603	1,139,039	1,432,428
Books indexed	do	268,182	463,517	539,659
Sheets passed through ruling machine	do	42,172,615	49,571,494	46,174,905
Signatures sewed	do	48,606,987	46,631,764	63,405,398
Copies punched and drilled	do	196,840,923	274,507,203	314,192,765
Lines perforated	do	11,630,313	16,652,844	11,741,327
Tablets made	do	7,939,214	9,495,253	10,565,441
Miscellaneous rebinding, etc	do	179,111	156,299	209,119

Table 5 shows the charges for printing and binding work and the service for which the work was done during the fiscal year 1940. The charges for printing and binding for the Congress, Government Printing Office and Architect of the Capitol amounted to $2,987,378.23; for the Federal Register $112,621.77; for the Post Office Department, including the cost of printing postal cards and money order blanks, $2,046,122.52; Agriculture Department $1,950,909.85; Treasury Department $1,552,932.87; War Department $1,129,732.64; Department of Commerce, exclusive of Patent Office printing $1,065,234.84; Patent Office $873,767.22; Navy Department $1,002,814.31; Interior Department $662,429.63; Library of Congress $542,168.15; Justice Department $434,112.69; Labor Department $412,575.18; State Department $204,219.23; Federal Loan Agency $347,452.57; Federal Security Agency $465,935.09; Federal Works Agency $411,021.94; Interstate Commerce Commission $245,207.83. The Superintendent of Documents ordered the printing of books and pamphlets for sale to the public at a cost of $561,110.60; for depository distribution the cost of publications was $114,368.00; for catalogs and indexes, $21,945.88; for price lists and other office printing, $91,683.10; and for supplies and services, $61,074.08; making the total cost of work and services furnished to the Superintendent of Documents during the fiscal year 1940, $850,181.66.

A number of other branches of the service had printing and binding costs during the year 1940 in excess of $100,000 each.

TABLE 5.- Charges for work and to whom delivered during the fiscal year ended June 30, 1940

Congress:

Congressional Record	$850,173.16	
Publications for International Exchange	19,395.51	
Franked Envelopes and Document Franks	92,622.31	
Bill, Resolutions, and Amendments	215,845.02	
Committee Reports	137,675.98	
Documents	341,058.05	
Hearings	476,930.70	
Miscellaneous Publications	522,726.62	
Miscellaneous Printing and Binding	330,950.88	
Total Congressional Printing		$2,987,378.23
The Federal Register		112,621.77
Code of Federal Regulations		88,147.05
Private Orders by Members of Congress:		
Documents, reports, bills, etc.		12,815.12
Speeches		97,820.99
Other Private Orders		4,771.01
Superintendent of Documents		850,181.66
Library of Congress		542,168.15
Agriculture		1,950,909.85
Commerce		1,065,234.84
Interior		662,429.63
Justice		434,112.69
Labor		412,575.18
Navy		1,002,814.31
Post Office		2,046,122.52
State		204,219.23
Treasury		1,552,932.87
War		1,129,732.64
Advisory Commission to the Council of National Defense		326.92
Agricultural Adjustment Administration		100,834.25
Alley Dwelling Authority		1,146.94
American Battle Monuments Commission		239.50
Benjamin Harrison Memorial Commission		18.39
Board of Governors of the Federal Reserve System		1,092.52
Board of Tax Appeals		31,218.00
Bureau of the Budget		44,946.31
Central Statistical Board		147.15
Civil Aeronautics Authority		89,565.52
Civil Service Commission		155,315.91
Civilian Conservation Corps		9,565.47
Commission of Fine Arts		351.48
Commodity Credit Corporation		19,712.52
Council of Personnel Administration		26.35
Court of Claims		29,110.81
Court of Customs and Patent Appeals		6,029.77
District Government		78,394.76

TABLE 5.- Charges for work and to whom delivered during the fiscal year ended June 30, 1940

Electric Home and Farm Authority	$ 2,482.33
Employees Compensation Commission	30,605.38
Export-Import Bank of Washington	263.06
Farm Credit Administration	131,784.76
Farm Security Administration	161,373.46
Federal Alcohol Administration	12.00
Federal Communications Commission	40,063.35
Federal Deposits Insurance Corporation	8,786.90
Federal Emergency Administration of Public Works	26,121.50
Federal Home Loan Bank Board	4,821.33
Federal Housing Administration	87,235.38
Federal Loan Agency	347,452.57
Federal Power Commission	75,720.92
Federal Savings and Loan Insurance	17.41
Federal Security Agency	465,935.09
Federal Surplus Commodities Corporation	10,684.94
Federal Trade Commission	83,376.06
Federal Works Agency	411,021.94
General Accounting Office	103,108.88
Home Owners' Loan Corporation	12,425.56
Inland Waterways Commission	497.29
Interstate Commerce Commission	245,207.83
Maritime Labor Board	388.37
National Academy of Sciences	191.02
National Advisory Committee for Aeronautics	25,031.36
National Archives	19,395.05
National Bituminous Coal Commission	12,007.50
National Capitol Park and Planning Commission	27.92
National Emergency Council	1,429.37
National Forest Reservation Commission	696.03
National Gallery of Art	424.36
National Labor Relations Board	157,015.01
National Mediation Board	2,117.73
National Railroad Adjustment Board	380.16
National Resources Planning Board	2,984.10
Office of Government Reports	20,010.82
Panama Canal	14,096.44
Pan American Union	36,095.92
Patent Office	873,767.22
Puerto Rico Reconstruction Administration	2,850.36
Railroad Retirement Board	113,210.09
Real Estate Commission, D. C.	14.34
Reconstruction Finance Corporation	76,234.34
Rural Electrification Administration	23,505.90
Securities and Exchange Commission	135,415.36
Smithsonian Institution	58,576.79
Social Security Board	81,247.63
Supreme Court, U. S.	6,357.92

TABLE 5.- Charges for work and to whom delivered during the fiscal year ended June 30, 1940

Tennessee Valley Authority	$ 45,587.25
Thomas Jefferson Memorial	298.11
U. S. Coronada Exposition	32.52
U. S. Customs Court	21.32
U. S. Golden Gate Exposition	197.46
U. S. Housing Authority	10,226.96
U. S. Maritime Commission	45,516.17
U. S. New York World's Fair Commission	1,569.26
U. S. Tariff Commission	19,769.36
Veterans Administration	143,594.77
War Finance	14.95
White House	5,699.91
Works Progress Administration	240,176.32
Grand Total Printing and Binding and Blank Paper	$20,150,203.72

Table 6 is a statement giving the details of production costs for each section of the Office, exclusive of the Office of the Superintendent of Documents, grouped under the headings of salaries, wages, leave, and holiday pay; materials, supplies, equipment, and machinery; maintenance and upkeep; administrative and clerical expenses, and other major items entering into the cost of production.

Section (manu	ck lus- ord. r. s	Intersection work and miscellaneous credits: Debit	Intersection work and miscellaneous credits: Credit	Total Cost of Production
Job Composing.....	--	$ 80,372.71	$ 23,543.08	$ 642,213.42
Plating lock-up.....	--	1,068.93	12.01	53,551.72
Title Page.....	--	11,073.14	239.84	47,647.48
Hand.....	--	118,655.70	1,016.52	545,975.66
Linotype.....	--	575,420.84	891.88	1,650,378.39
Monotype.....	--	672,905.45	188,358.32	2,053,628.99
Proof.....	--	638.07	1,240,103.47	---
Patents.....	--	36,407.37	8,066.11	639,955.04
Library Composing Dr	25	15,032.83	---	173,755.15
Platemaking: Moldi	--	27,762.48	49,500.03	367,278.35
Photoengraving.....	--	6,895.29	35,348.28	122,383.77
Press: Job, book, o	--	125,923.96	35,655.25	2,686,915.69
Money order.....	04	4,895.46	---	143,498.98
Postal Card.....	86	25,851.07		771,398.79
Pamphlet.....	--	5,671.16	21,913.81	1,460,685.63
Blank.....	--	7,077.30	123,847.61	406,671.93
Book.....	--	25,716.16	111,357.27	950,672.12
Cutting and Packing.	--	360.13	33,000.22	374,004.84
Library Binding Dra	82	2,482.33	12,103.12	187,229.17
Details Chargeable..	--	115.43	22,989.15	54,245.79
Ink.....	--	---	80,991.04	---
Roller and Glue.....	--	---	28,206.84	---
Metal.....	--	---	84,416.62	---
Stores,(handling pap	--	366.45	338,785.41	---
Paper Stock - Press	07	143,141.24	---	3,421,564.31
Paper Stock - Bindin	88	9,086.77	---	241,572.85
Blank Paper Stock -	54	84,511.34	---	1,547,996.68
Miscellaneous items.	39	491,681.54	131,499.92	608,143.24
Miscellaneous servic than printing and		3,814.94	---	33,428.04
	55	$2,456,928.09	$2,571,836.80	$19,185,393.03

Table 6. -- Statement of the cost of production of the Office for the fiscal year 1940.

(Production sections only)

Section (manufacturing center)	Total Compensation	Material, Supplies, Equipment & Machinery	Maintenance and Upkeep	General Overhead	Paper stock issued, illustrations, ord. outside pur. vouchered	Intersection work and miscellaneous credits: Debit	Intersection work and miscellaneous credits: Credit	Total Cost of Production
Job Composing	$ 467,266.29	$12,836.32	$ 4,207.35	$131,023.33	---	$ 30,375.71	$ 23,443.38	$ 642,213.42
Plating lock-up	39,087.70	4,186.00	777.86	8,443.24	---	1,058.03	12.01	53,561.72
Title Page	20,413.60	899.23	230.33	6,361.02	---	11,073.14	239.84	47,647.38
Bond	342,002.38	8,627.68	3,816.87	73,390.55	---	118,655.70	1,016.52	585,975.66
Linotype	366,483.11	8,932.73	13,214.38	147,219.21	---	57,420.84	891.88	1,650,378.39
Monotype	1,247,845.20	31,644.10	20,952.94	269,140.62	---	672,905.45	188,358.32	2,053,628.99
Proof	1,023,734.15	836.31	1,059.69	208,835.25	---	638.07	1,240,103.47	---
Patents	496,623.22	3,190.28	4,558.17	107,333.11	---	36,407.37	6,066.11	639,955.04
Library Composing Branch	105,870.49	10,402.57	1,28[illegible].22	8,160.79	$33,008.25	15,032.83	---	173,755.15
Electrotyping: Molding, stereotyping, finishing	282,409.91	20,829.89	16,830.39	69,595.71	---	47,762.48	49,380.03	367,278.35
Photoengraving	104,021.14	18,653.97	2,633.51	25,628.14	---	6,895.09	35,348.28	122,583.77
Press: Job, book, offset, and tabulating card	1,917,134.02	93,595.66	153,614.07	402,303.63	---	145,943.96	32,555.45	2,688,915.69
Money order	94,932.97	9,217.46	1,893.80	11,352.45	61,207.34	4,695.46	---	143,498.98
Postal Card	138,331.46	38,841.73	6,822.79	28,565.88	533,595.86	25,851.07		771,398.79
Pamphlet	1,178,557.73	21,878.47	36,135.37	239,603.11	---	5,671.16	21,913.81	1,460,085.63
Alone	387,989.54	39,985.58	16,606.39	78,862.73	---	7,077.30	125,847.61	406,671.93
Book	700,542.76	176,636.38	18,726.38	140,5[illegible].31	---	65,716.16	111,357.87	950,672.12
Cutting and Packing	314,358.52	19,842.77	8,103.97	64,139.67	---	380.13	33,000.22	374,004.84
Library Binding Branch	171,605.83	7,193.43	1,994.93	13,252.15	2,833.62	2,482.33	12,103.12	187,229.17
Details Chargeable	73,798.68	82.15	310.02	3,519.66	---	115.43	22,980.15	54,845.79
Ink	15,834.98	61,128.01	935.53	3,034.52	---	---	60,901.04	---
Roller and Glue	8,460.84	16,839.66	1,252.24	1,681.10	---	---	28,206.84	---
Hotel	12,121.17	64,763.58	5,167.70	2,304.17	---	---	84,116.62	---
Stores, (handling paper, illustrations, and outside purchases)	243,024.57	22,303.77	27,587.25	45,533.07	---	364.45	338,785.41	---
Paper Stock - Press Division	---	---	---	---	3,278,423.07	143,141.24	---	3,421,564.31
Paper Stock - Binding Division	---	---	---	---	232,436.38	9,381.77	---	241,872.95
Blank Paper Stock - Binding Division	---	---	---	---	1,483,435.34	64,511.34	---	1,547,996.68
Miscellaneous items	---	27,472.29	4,094.94	---	148,495.39	401,681.54	131,490.92	638,153.24
Miscellaneous service for Superintendent of Documents other than printing and binding	---	19,317.02	15,223.08	---	---	3,244.04	---	33,424.04
Total	$10,258,320.5[illegible]	$738,417.34	$413,846.97	$2,100,[illegible]82.22	$5,769,534.[illegible]	$2,165,928.09	$2,171,836.80	$19,185,393.03

Table 7 is an itemized statement of the classes of work delivered and charged for during the fiscal year 1940. Of Publications there were printed 155,287,530 copies, including speeches, private orders, and copies ordered for sale by the Superintendent of Documents, but not including the Congressional Record, of which 7,876,562 copies were printed. The grand total number of copies of the various classes of work printed in 1940 was 7,551,409,921, as compared with 6,599,485,832 in 1939 and 6,524,377,197 in 1938. The increase in the number of copies of the various classes of work printed in 1940 over 1939 was 951,924,089. The total charges for this work in 1940 amounted to $20,150,203.72, as compared with $18,238,045.10 in 1939, an increase of $1,912,158.62.

1940.

	Charges for rush work	Total charges
Publications:		
Smaller than 5	$ 10,979.04	$ 422,365.91
Octavo (5½ by	178,351.88	4,865,100.37
Royal Octavo (	27,272.63	644,625.39
Quarto (larger	48,648.50	1,086,960.59
Miscellaneous.	.....	809,528.58
Congressional Record	93,325.66	850,173.16
Bills, resolutions a	44,378.98	215,845.02
Specifications of Pa	.....	696,760.60
Official Gazette & A	.....	148,916.79
Post Office:		
Money Orders	.....	188,522.49
Postal Cards	.....	876,260.64
Letterheads and Enve	2,311.13	493,296.51
Blanks, Notices, sch	91,574.29	4,874,341.90
Tabulating Cards	193.04	245,970.15
Black Books	2,162.68	437,827.08
Binding Newspapers,	114.61	536,094.95
Loose Leaf and other	11.30	61,426.54
Blank Paper	.....	1,803,418.01
Miscellaneous charge	1,644.05	892,769.04
Total	$500,968.39	$20,150,203.72

Table 7.-- Itemized statement of the finances and charges for work delivered during the fiscal year 1940.

Class of work	Number of copies	Number of type pages	Number of publications bound	Charges for composition, pressework, plating, folding, binding, illustrations, contract, miscellaneous	Charges for paper	Charges for author's alterations	Charges for rush work	Total charges
Publications:								
Smaller than 5½ by 8½	25,224,108	30,381	4,199	$ 319,999.16	$ 76,669.35	14,747.76	$ 10,079.04	$ 422,305.91
Octavo (5½ by 8½ to 6¾ by 9¾)	63,863,201	530,236	410,420	3,956,371.53	595,626.96	224,750.00	173,351.88	4,868,100.37
Royal octavo (6¾ by 9¾ to 8 by 11)	5,173,504	64,360	22,036	915,472.14	76,363.78	24,524.84	27,872.63	644,625.39
Quarto (larger than 8 by 11)	16,107,907	74,381	27,772	906,024.02	82,683.79	40,599.28	48,643.50	1,086,060.59
Miscellaneous	44,672,573	33,809	298,587	597,358.87	210,531.27	1,438.44	.....	809,528.58
Congressional Record	7,876,562	37,307	42,338	628,691.75	126,031.47	2,124.28	93,325.66	850,173.16
Bills, resolutions and amendments	8,835,270	82,649	170	161,076.20	10,193.71	196.13	14,378.98	215,345.02
Specifications of Patents, etc	5,815,170	161,902	.....	637,797.49	8,993.11			646,790.60
Official Gazette & Annual Indexes	241,432	17,311	50	129,999.96	18,925.83			148,916.79
Post Office:								
Money Orders	267,767,825	.....	.....	127,315.45	16,207.04	.....	.....	188,522.49
Postal Cards	2,094,135,000	.....	.....	342,660.78	533,595.86	.....	.....	876,260.94
Letterheads and Envelopes	329,496,476	.....	.....	241,027.62	249,583.84	373.32	2,311.13	493,296.51
Blanks, Notices, schedules, etc	4,139,327,437	.....	.....	2,739,555.38	2,903,955.11	42,247.12	91,574.29	4,574,341.90
Tabulating Cards	376,583,000	.....	.....	125,027.15	120,665.60	24.36	193.04	245,970.15
Black Books	4,939,039	.....	.....	322,538.85	112,176.37	947.18	2,162.68	437,827.08
Binding newspapers, documents, repts.,etc	63,679	.....	.....	535,940.48	29.01	1.86	114.61	536,094.95
Loose leaf and other patent binders	281,633	.....	.....	47,338.52	14,076.72	.....	11.30	61,426.54
Black Paper	.....	.....	.....	180,246.34	1,623,171.67	.....	.....	1,803,418.01
Miscellaneous charges	.....	.....	.....	709,510.58	181,351.90	-44.51	1,844.05	892,769.04
Total	7,551,409,921	1,033,346	806,372	$13,274,916.27	$6,012,829.39	$ 361,489.67	$500,966.39	$20,190,203.72

Table 8 gives the details of the inventory of stock and machinery and equipment on hand at the close of the fiscal year 1940. The value of supplies on hand, including paper, envelopes, and other materials, was $1,318,275.19, as compared with $1,186,620.34 in 1939, representing an increase in the value of stock on hand of $131,654.85. The value of machinery and equipment in 1940 was $5,865,933.33, as compared with $5,580,573.70 in 1939 or an increase in the value of machinery and equipment of $285,359.63. The total value of stock of all kinds and machinery and equipment on hand at the close of the fiscal year 1940 was $7,184,208.52, as compared with $6,767,194.04 in 1939, or an increase of $417,014.48.

Table 8-

Inventory of quantity and cost of paper and envelopes, materials and supplies, and machinery and equipment on hand June 30, 1940

	Pounds	Cost
Paper and envelopes:		
Printing	4,393,138	230,536.65
Mimeograph	560,608	30,618.64
Safety writing	199,285	24,907.33
Writing	3,415,992	190,062.04
Map	54,215	5,833.64
Manifold	431,978	67,247.06
Bond	2,151,624	170,567.88
Ledger	1,102,514	108,317.35
Index	479,104	37,166.77
Cover	325,430	25,484.23
Manila	381,087	25,427.38
Kraft wrapping	264,175	11,023.47
Manila tagboard	211,428	15,462.04
Cardboard	191,535	8,538.12
Bristol board	1,368,112	60,559.01
Miscellaneous	161,124	16,130.73
Binder's board	474,950	14,619.11
Envelopes		26,828.64
Total, paper and envelopes		1,069,330.09
Other material and supplies:		
Miscellaneous supplies		192,496.76
Book cloth		11,680.61
Ink ingredients		9,603.35
Buckram		13,442.18
Leather		4,751.16
Gold leaf		3,203.47
Ink (made in Government Printing Office)		4,876.94
Cartons and containers		7,321.90
Imitation leather		1,568.73
Total, materials and supplies		248,945.10
Total, materials and supplies, paper and envelopes		1,318,275.19
Machinery and equipment		5,865,933.33
Grand total		7,184,208.52

Table 9 shows the number of copies of publications printed in 1940 for the Congress, the executive departments, and independent Government establishments. During the fiscal year 1940 there was printed a total of 126,771,996 publications. The figures in table 9 are exclusive of the number of speeches printed for members of Congress and other private orders.

TABLE 9.- Publications, including annual reports and documents, printed on requisition during the fiscal year ended June 30, 1940, for Congress, the executive departments, and independent Government establishments.

Congress	7,846,502
The Federal Register	1,918,800
Code of Federal Regulations	14,000
Superintendent of Documents	19,406,670
Library of Congress	225,917
Agriculture	15,560,102
Commerce	8,105,098
Interior	2,913,807
Justice	684,513
Labor	8,588,936
Navy	4,830,564
Post Office	10,325,967
State	509,180
Treasury	4,187,451
War	12,236,589
Agricultural Adjustment Administration	1,870,742
Alley Dwelling Authority	6,229
American Battle Monuments Commission	288
Board of Governors of the Federal Reserve System	3,481
Board of Tax Appeals	112,127
Bureau of the Budget	75,866
Central Statistical Board	898
Civil Aeronautics Authority	547,856
Civil Service Commission	374,570
Civilian Conservation Corps	33,909
Commission of Fine Arts	1,543
Commodity Credit Corporation	177
Court of Claims	61,281
Court of Customs and Patent Appeals	678
District Government	64,021
Electric Home & Farm Authority	5
Employees Compensation Commission	199,917
Farm Credit Administration	2,113,115
Farm Security Administration	296,031
Federal Communications Commission	189,297
Federal Deposits Insurance Corporation	47,566
Federal Emergency Administration of Public Works	74,825
Federal Home Loan Bank Board	21,900
Federal Housing Administration	361,060
Federal Loan Agency	878,704
Federal Power Commission	146,668
Federal Security Agency	10,146,787
Federal Trade Commission	24,409
Federal Works Agency	1,211,143
General Accounting Office	122,131
Home Owners Loan Corporation	9,236
Interstate Commerce Commission	2,193,881

TABLE 9, Cont'd.--Publications, including annual reports and documents, printed on requisition during the fiscal year ended June 30, 1940, for Congress, the executive departments and independent Government establishments.

Inland Waterways Corporation	3,177
Maritime Labor Board	5,006
National Academy of Sciences	2,750
National Advisory Committee for Aeronautics	55,782
National Archives	570,741
National Bituminous Coal Commission	7,040
National Emergency Council	13,400
National Forest Reservation Commission	8,000
National Labor Relations Board	964,557
National Mediation Board	8,041
National Resources Planning Board	101,242
National Railroad Adjustment Board	1,179
New York World's Fair Commission	100,000
Office of Government Reports	26,348
Panama Canal	9,934
Pan American Union	154,451
Patent Office	143,424
Puerto Rico Reconstruction Administration	889
Railroad Retirement Board	2,779,160
Real Estate Commission of D. C.	2,500
Reconstruction Finance Corporation	13,088
Rural Electrification Administration	563,637
Securities and Exchange Commission	236,177
Smithsonian Institution	127,058
Social Security Board	1,002,322
Supreme Court, U. S	156
Tennessee Valley Authority	88,149
Thomas Jefferson Memorial	2,000
U. S. Housing Authority	110,845
U. S. Maritime Commission	203,081
U. S. Tariff Commission	8,786
Veterans' Administration	174,228
White House	1,017
Works Progress Administration	719,394
Total	126,771,996

Table 10 shows the receipts from the sale of waste paper, waste materials, and condemned machinery, and the surplus from the sale by the Office of the Superintendent of Documents of Government publications over the cost of their printing during the fiscal year ended June 30, 1940.

During the fiscal year 1940, the surplus from sale of documents increased $63,656.06 over the previous year.

TABLE #10

Condemned material, machinery, waste wood, waste metal, etc.-	$4,772.62
Waste Paper -	49,139.62
Surplus from sale of documents- - - - - - - - - - - - - - - - - -	495,222.61
Telephone messages- -	9.95
Total -	549,144.80

DIVISION OF ACCOUNTS

During the fiscal year 1940 this division has continued to perform the functions involving the general financing of the Government Printing Office, including: accounting, bookkeeping; cost recording; current cost analysis; measuring ems of type in composition; computing charges for each printing requisition; the preparation and record keeping in connection with approximately 1[illegible],000 bills for the printing produced during the fiscal year; the collection of all checks from departments for printing and blank paper furnished by the Government Printing Office; studies in connection with rates and readjustment thereof for over 1,[illegible]00 printing operations; statistical studies with regard to efficiency in the operation of machinery, printing methods, and equipment, which have resulted in appreciable savings and reductions in rates; compilation of accurate costs of each printing job as the work on the job progressed throughout the plant; preparation of numerous other statistical tables and statements for use of the Office in general and for the operating divisions in order to assist management officials; mechanical preparation of the pay rolls and the audit of pay rolls; administration of the annual and sick-leave laws and regulations; reports with reference to retirement deductions; and various other functions and reports concerning legal and financial matters.

PERSONNEL

There was an increase of 515 in the number of employees on the rolls of the Office at the close of June 30, 1940. The total number on this date was 6,059, as compared with 5,544 on June 30, 1939.

During the year 93 employees of the Office were retired, 50 on account of age, 27 on account of disability, and 16 employees who have taken advantage of the clause in Sec. 1 of the Retirement Act, approved May 29, 1930. Of the 93 employees who retired during the past year, 74 were men and 19 were women.

The following summarized statement shows all changes in personnel during the past fiscal year:

Appointments.....	985
Separations.....	470
Retirements.....	93
Deaths.....	40
On rolls June 30, 1940.....	6,059

Visitors conducted through the Office by our guides during the year numbered 6,650; of this number 90 were from foreign countries.

BUILDING PROGRAM AND MOVING OPERATIONS

The warehouse building was completed in February 1938 and the new annex No. 3 in February 1940. Moving of executive offices and production machinery into it and rearranging machinery in buildings 1 and 2 is nearly completed, although some work yet is to be done to replace temporary connections.

Special machinery handling equipment was prepared in our own shops to handle moving. Electric tractors hauled the machines over. As a result of the methods used, it was possible for each of our several moving crews to disconnect, move and put back in service 2 small presses per day. Our largest flat bed presses, such as No. 56 Michles, which required considerable dismantling, took four days for one crew. On linotype machines, a moving schedule of 20 machines per day was maintained; the machines were disconnected at 8:00 A.M., moved, reconnected and ready at 4:30 P.M. for use by the night side. The schedule for monotype casting machines was slightly slower because each machine required electric, water and drain connections. Our 100 monotype keyboard machines required only compressed air connections. These were all moved on one Sunday.

During building operations the Superintendent of Documents stock of publications was housed in a rented 7-story building at 613 G St., N. W. In the early fall of 1939 this stock totaled a little over 30,000,000 copies. In

December 1940 it was just under 46,000,000, an actual increase of 52%. Return of this stock to buildings 1 and 2 will be completed in the near future.

The only production machinery now being moved is the Congressional Record press and binding equipment.

Other work yet to be done is the following:

1. Replace 7 of the original elevators in building No. 1. These elevators are 38 years old. Contract is about to be awarded.

2. Rewire buildings 1 and 2 for alternating current lighting and elimination of hazards of obsolete wiring (15% of our work completed).

3. Prepare quarters and move roller and glue making equipment to annex No. 3 (50% completed).

4. Move metal melting equipment to annex No. 3 (50% completed).

5. Install steel shelving for documents, plate vault and type storage (15% completed).

6. Arrange new waste paper baling room in building No. 1 and install new equipment (not started).

7. Prepare quarters for Layout Section photography and move equipment (90% completed).

8. Enlarge Cafeteria kitchen (80% completed).

9. Remove old power plant equipment (not started).

10. Move box shop, pipe shop, blacksmith shop (not started).

11. Extensive floor repairs and miscellaneous other work.

PURCHASING DIVISION

During the fiscal year ended June 30, 1940, the Purchasing Division placed 10,044 orders, involving total expenditures for purchases of approximately $7,830,000. Open-market purchases for material and paper numbered approximately 22,000 and for illustrations 400. For the first time in the history of the Office, purchase orders exceeded 10,000 - an increase of approximately 10 per cent over the preceding fiscal year and the amount expended is 22 per cent greater.

By closely watching the paper market and the trends therein and by placing orders for standard stocks at the most opportune time as indicated by such trends, an actual saving of $45,517 was effected during the year.

The Purchasing Division was able to secure by transfer from other Departments to this Office during the fiscal year 1940 surplus property valued at $600.

Proposals for material were sent in April 1940 for the term of one year beginning July 1, 1940 and ending June 30, 1941, to approximately 600 prospective bidders, which resulted in the placing of 68 contracts. Proposals for paper were sent in October 1939 to approximately 150 firms for the six month term beginning July 1, 1940, which resulted in the placing of 15 contracts for the first six month period and 20 contracts for the second six month period. Proposals for envelopes for the year beginning

July 1, 1940, were issued in April to approximately 50 prospective bidders, resulting in the placing of 5 contracts.

Six contracts for the sale and disposal of various classes of old material and one for the removal of debris were entered into for the year beginning July 1, 1940.

NEW EQUIPMENT

New equipment was purchased during the fiscal year 1940 for various Divisions as follows:

Apprentice Section.—One board cutting shear; 160 double wall galleys; 1 rotary miterer; 25 galley and type cabinets; 21 imposing and makeready tables.

Binding Division.—Ten sealing machines; 1 round cornering device; 1 automatic insert feeder; 4 stitcher heads; 1 friction drive paper feeder; 4 power gauges for cutting machine; 10 vertical carriage boxes for cutting machines.

Binding, Library Branch.—One power gauge for cutting machine; 38 fonts of brass type.

Composing Division.—One vertical miterer; 161 chases; 237 type cabinets; 32 togglebases; 2,500 toggle hooks; 5 glider trim-o-saws; 8,000 galleys; 13 monotype molds; 32 imposing tables.

Composing, Library Branch.—Four-hundred galleys.

Delivery Section.—Two automobile delivery trucks.

Hospital Section.—One diathermy unit; 1 X-ray machine.

Maintenance Division.—One floor polishing and scrubbing machine; 1 safety swinging scaffold; 55 neutralizer transformers; 119 remote control circuit breakers; 1 pipe bender; 1 sanding machine; battery charging and control equipment.

Platemaking Division.—One 40 x 48" camera; 2 stainless steel photo sinks with compressor and water cooler; 1 electroplating tank.

Presswork Division.—Nine extension pile sheet deliveries; 4 suction pile stream feeders; 1 plate graining machine; 1 vacuum frame with arc lights.

Stores Division.—Three electric tractors.

Division of Tests and Technical Control.—One change can mixer; 1 photo exposure meter.

Work Released by the Public Printer

During the fiscal year 1940 the Public Printer issued waivers to the various departments, authorizing them to purchase for themselves from commercial sources printing totaling $2,952,825.97. The greater part of this work consisted of specialties such as tabulating cards, fan-fold forms, color work, etc., that the Government Printing Office was not particularly equipped to produce economically and efficiently at the time the waivers were issued.

APPRENTICE SCHOOL

At the close of the fiscal year the Apprentice School had an enrollment of 143. Of this number 88 were assigned to the Composing Division, 22 to the Press Division, 22 to the Bindery, 8 to the Platemaking Division, and 3 to the Machine Section.

Reports from the various instructors, foremen, and group chiefs indicate that the apprentices are doing very well in both their academic and trade training courses.

The Apprentice School moved into its new section during April of this year. The newly added bookbinding department, equipped as it is, places the training of bookbinding apprentices on a par with that in other departments; namely, composing and press.

Of the 143 now enrolled, 96 are due to graduate in October 1940.

EMERGENCY HOSPITAL

During the fiscal year 1940 the Emergency Hospital gave a total of 28,152 treatments to employees of the Office. Of this number 5,097 were for injuries received while on duty; 2,614 surgical treatments for other than injuries received while on duty; 13,409 treatments for medical conditions; and 7,032 retreatments. These figures show an increase of 1,726 treatments over those given during the previous fiscal year.

In addition to the medical and surgical treatments rendered, 1,121 physical examinations were made of new employees entering the service, and 1,035 physical examinations were made to determine fitness for duty in the interest of personnel administration. In addition, the visiting nurse called on 1,466 employees who had reported ill.

During the year the following has been accomplished in setting up and putting into effect the safety policy proposed and ordered by the Public Printer. General elections were held throughout the plant and 60 employees were elected as employee representatives to serve on the shop safety committees. Three meetings of all the employee members of the various shop safety committees were called. At these meetings a general discussion was entered into concerning safety projects. Problems of individual committeemen were presented to the committee as a whole when such problems needed the c ooperation of various sections in its solution.

One of the largest tasks undertaken by the committee as a whole was the reduction in the number of skid accidents. This was a large task and involved the cooperation of members of three large divisions, all of which handled paper on skids.

The Delivery Section reports a total of 190,266 miles traveled during the fiscal year with 13 accidents, giving an accident frequency of 6.954. There were no injuries involved.

GROUP LIFE INSURANCE

Through the Government Printing Office Group Life Insurance Association, organized May 1, 1931, there have been paid, up to February 29, 1940, 280 death claims, totaling $257,968.00. Insurance in force on March 1, 1940, consisted of 3,695 units, amounting to $3,223,070.00; 2020 second units, amounting to $1,745,711.00; and 537 third units, amounting to $429,952.00; total insurance in force was $5,398,733.00.

On March 1, 1940, the reserve fund of the association consisted of $25,000.00 in U. S. Treasury Bonds, $15,000.00 (maturity value 10 years $20,000)in United States savings bonds, $2,000 invested in the Government Printing Office Federal Credit Union, $25,000 at the Washington Loan & Trust Co. for investment principally in financing the homes of Government Printing Office employees, and $25,000 in 5 building and loan associations (insured by Federal Savings & Loan Insurance Corporation); total reserve fund $92,000.00. This fund was established to be used should the present premium rates (which are adjusted annually) of the association be materially increased due to the group attaining a high average age or having a high mortality experience.

Insurance is provided at a cost of $1 per month per unit in amounts from $200 to $1,000, depending upon an employee's age.

DIVISION OF TESTS AND TECHNICAL CONTROL

The total number of samples tested by the Division of Tests and Technical Control during the year was 9,242. Following is a tabulation of the various materials tested during the fiscal years 1939 and 1940.

Materials	1939	1940
Paper and envelopes	5,969	6,212
Textiles	746	730
Bookbinding leathers	92	68
Metals	694	808
Glue	55	29
Ink-making materials	296	324
Inks	7	10
Oils and greases	35	64
Gasoline	70	79
Chemicals	199	199
Miscellaneous	701	719
Total	8,864	9,242

There were 191 deliveries rejected for noncompliance with specifications. Of these rejections 116 were of paper, 1 of envelopes, and 74 of miscellaneous materials.

Paper

Paper received during the year totaled 104,765,078 pounds, an increase of 14,039,248 pounds or 15.47 percent over the previous year. Of this amount 1,209,424 pounds or 1.15 percent were rejected. The following is a tabulation of the amount

and causes of paper rejections made during the fiscal year:

Cause of Rejections	Number of Rejections	Pounds
Deficient in:		
Fiber content	1	1,830
Bursting strength	2	11,353
Tearing strength	1	9,841
Folding endurance	11	167,385
Thickness	35	108,050
pH Value	6	26,580
Not within weight tolerance	10	126,891
Unsatisfactory general appearance	36	442,625
Unsatisfactory color	10	197,218
Unsatisfactory finish	4	117,651
Total	116	1,209,424

Interest has been manifested by paper contractors in our efforts to correlate paper tests with requirements in the use of paper. Cause for paper rejections during the year will be discussed briefly so that a clear picture may be obtained of the importance of employing technical methods in the selection of the raw materials in order to facilitate production, for time consumed in adjusting ink to paper means a press standing idle.

Deficient fiber content.

Microscopic examination of the stock shows the kind of fibers from which the paper is made and indicates what may be expected as to its permanence and durability. Ground wood and

unbleached chemical wood fibers are subject to rapid deterioration. Paper containing these fibers becomes yellow and brittle upon exposure and aging, and, therefore, would not be suitable for permanent records.

Rag-content papers are made from 100 percent rag or from various percentages of rag and bleached chemical wood pulp as specified. The presence of chemical wood fibers in rag papers tends to impair their quality and permanence.

Rag fibers are more expensive than wood fibers, and the latter constitutes an adulteration resulting in an inferior sheet.

The bursting-strength test holds a time-honored position in Government paper specifications and is one of the oldest and most widely used for measuring the strength of paper. It gives an indication of the ability of a paper to resist strains which tend to rupture the fibers when in actual use. Only two rejections were made for deficient bursting strength, amounting to 11,353 pounds.

Folding endurance is regarded in the paper industry as most dependable for indicating the qualify of papers required to resist considerable handling. The specification requires that the paper withstand a minimum number of folds in two directions,

and these results are reported separately. This test indicates the brittleness of the fibers and consequently the comparative strength along and across the sheet.

There were 11 rejections made for inferior folding quality during the year, totaling over 167,385 pounds.

Thickness is an important factor in the case of all printing papers. Variations in thickness during a press run affect the evenness of the impression and cause objectionable variation in the bulk of bound books.

Tabulating-card paper must be uniform in thickness so that printed cards may be exactly adapted to the mechanism of high-speed accounting machines.

Postal cards printed from variable stock do not properly fit the packing cartons. If too thin, the cards will shift about and become damaged. During printing they affect automatic devices and cause delay. All rolls of tabulating- and postal-card stock are individually tested for thickness, and defective ones are rejected.

Index paper thicker than specified is rejected, as such file cards would occupy excessive space. If thinner than specified, their flexibility is unsatisfactory.

Such defects caused 35 rejections during the year, amounting to 108,050 pounds of paper.

During the last fiscal year only 6 rejections, representing 26,580 pounds of paper, were made for not meeting acidity specifications. Too great acidity will in all cases lower the resistance and permanency of papers.

Payment for roll paper is based on its net weight unless more than 2½ percent over the ordered 1,000-sheet unit, in which case the weight in excess of 2½ percent is deducted. Flat paper is paid for at the ordered 1,000-sheet unit weight unless more than 2½ percent under weight, in which case payment is made for net weight. If a delivery of paper is found more than 5 percent above or below the ordered 1,000-sheet or other unit, it is rejected.

Approximately 127,000 pounds of paper were rejected during the past year.

An unsatisfactory general appearance caused 36 rejections, involving more than 442,000 pounds of paper. This condition may be traced to a number of causes, usually to dirt or other foreign substance becoming mixed with the pulp. Metallic dust from machinery or discolored wood fibers have a similar effect, and

"crush" during the calendering process gives the paper a mottled appearance.

Unsatisfactory Color.

Variation in color and finish of paper is encountered not only among shipments from different contractors but sometimes within the same shipment. On a long-run job it is sometimes necessary to supply the pressroom with paper from different shipments. If the color of paper varies during the press run and the ink remains the same, there will be a variation in the tone value of the printed page, since the ink formula has previously been adjusted to the color of but one paper. This difficulty becomes important when paper must be used in large-edition runs such as the Agricultural Year Book which, in the last issue, numbered a quarter of a million books. It is therefore essential that deliveries comply with the Government Printing Office standard sample in order to obtain uniform results. Ten rejections, totaling 197,218 pounds of paper, were made for this defect last year.

The finish given to paper is one of its most important characteristics from the standpoint of the printer, since the quality of his work depends largely upon the paper's uniformity.

Variation in smoothness of paper is responsible for differences in color value of the printed impressions when such sheets are backed up in printing. It is readily comprehended, therefore, that for each job there should be little or no variation in the finish of the two sides of the paper in order to avoid variations in tonal values.

Four rejections, involving about 118,000 pounds of paper, were made last year for unsatisfactory finish. Improvement over previous years, however, has been obtained in the printability on certain stocks by introducing smoothness requirements into their specifications.

Few changes were made in the specifications for paper during the year. Most of these consisted in modifications to conform more closely to good commercial practice. It was found advisable to reduce the smoothness of 50 percent rag-coated book paper from 1,000 to 800 seconds. The folding endurance requirement of certain grades of manifold, bond, and ledger papers were also somewhat reduced. The rosin sizing requirement for manifold and the thickness requirement for 25 percent rag mimeograph and 50 percent rag index papers have been slightly increased. Specification was included for 83-pound 100 percent rag chart paper to meet

the demands of the executive departments. The specifications for calendered tag paper used for printing tabulating cards for use in electrical accounting machines have been revised to keep abreast of new developments in this field of paper making. Assistance has been given to the Federal Specification Committee in the preparation of a Federal Specification for tabulating cards to be used in the purchase of the printed cards by the various Government departments.

In cooperation with the Paper Testing Committee of the American Society for Testing Materials and the Technical Association of the Pulp and Paper Industry, a study of several paper-testing methods, with a view to developing greater speed and accuracy, was continued during the year.

It has been previously reported that the method of gathering samples of paper for testing purposes was found inadequate in that the method does not assure a sample truly representative of the shipment and in that it was designed primarily as a method for the sampling of paper in sheets. The Technical Director, as a member of the Paper Testing Committee of the American Society for Testing Materials, has prepared an improved method for

sampling of paper and paper products which has been adopted as a tentative method by this Society and by the Technical Association of the Pulp and Paper Industry. This method demands uniformity in size and class of samples, and the qualifications tested embrace more than a dozen elements, all essential to insure economy in use and permanence in quality.

In recent years the subject of permanence and durability has occupied a prominent place in discussions and investigations among scientists and technicians throughout the paper industry. This interest has been increased by the alarm expressed by some librarians concerning the rapid deterioration of modern paper, which may cause our present literature in the near future to face the possibility of total destruction. The lack of specific data on the comparative endurance of various papers under conditions of use has also added stimulus to this interest.

The Government Printing Office receives frequent letters expressing the desire for information concerning the factors involved in the deterioration of paper and requesting precise methods for testing paper to determine its permanence and durability, and for the preservation of rare documents.

Since 1885 approximately 300 articles have appeared in print on this subject. These articles are scattered throughout

more than 100 trade journals and magazines edited in America and abroad, most of which are not available in any one library.

In consideration of this general interest we have prepared in the form of our Technical Bulletin No. 22 abstracts of the existing literature dealing with this subject, in the hope that such a publication may serve as a ready reference source to librarians, paper chemists and individual investigators seeking a summary of information, as a foundation for future exploration into this field. Copies of this Technical Bulletin may be procured for 15 cents from the Superintendent of Documents of this Office.

For nearly twenty years varying opinions have been expressed concerning the proper temperature and relative humidity conditions most appropriate for testing printing paper and paper products. Many arguments for one standard or another have been advanced, but few have been based upon firm, logical foundations.

The Joint Committee on Printing of Congress in December 1923 adopted 50 percent relative humidity as being most nearly representative of the conditions under which paper is used in this country. The Federal Specification Board in January 1925 adopted this standard, and for the past 15 years, the specifications for all paper purchased by the United States Government have required

the physical tests of paper and paper products to be made at 50 percent relative humidity. The Division of Tests and Technical Control prepared a paper discussing the factors in favor of adopting this standard by the paper industry instead of 65 percent. This paper, entitled "Humidity Standards for Paper Testing," was published in the April 1940 issue of The Paper Industry and Paper World. Reprints of this article may be obtained upon request.

Envelopes

During the year the number of envelopes purchased totaled 107,406,436. Of these purchases one delivery or 5,000 envelopes was rejected.

The specifications for kraft envelopes have been slightly modified to permit the use of bleached sulphate fibers in the kraft stock, and an acidity requirement expressed in terms of pH or hydrogen ion concentration has been added to confirm with recent commercial developments.

Ink and Miscellaneous Materials

The total production of printing inks, including mimeograph, stamp-pad, and numbering machine inks, for the year was 429,517 pounds, an increase of 60,540 pounds or 16.41 percent over last year.

There were also produced a number of miscellaneous products, which may be classified as follows:

Materials		Quantity
Blue toner	Pounds	30,324
Molding wax compound	do	50
Turpentine substitute for lithography	Quarts	336
Electrotype backing fluid.	do	160
Ruling inks	do	1,904
Writing inks (all colors).	do	22,126
Striping ink for tabulating cards. .	do	95
Special ink solvent	do	2,196
Lacquer thinner	do	720
Mucilage	do	384

Other Government departments and agencies were furnished with miscellaneous materials manufactured by the Government Printing Office.

The following tabulation compares the quantities of different materials furnished to Government departments during the fiscal years 1939 and 1940:

Material	Pounds 1939	Pounds 1940
Mimeograph ink, black.	154,402	189,428
Printing ink, black and colored, including multigraph.	15,833	18,250
Addressograph ink, blue and black	70	72
Writing ink (all colors)	(1) 22,596	(1) 21,259
Stamp-pad and numbering-machine ink	4,694	3,765
Check-signature ink	484	62
Special ink solvent	(1) 488	(1) 484
Molded glue, including cancelling-stamp composition	3,835	3,502
Paste	8,100	7,900
Roller composition	500	572

(1) Quarts.

At the request of the Department of Agriculture, new offset inks were developed in maroon, red, green, and brown colors. A cellophane printing ink was developed for Government Printing Office use. Several wetting and dispersing agents were experimentally used in the manufacture of printing inks. One such commercial compound has been found to have excellent wetting and dispersing qualities and has been adopted for use in our ink formulas. The ink formula for printing on bookbinding fabrics processed with pyroxylin has been modified in order to print more suitably on these types of material.

Type Metal

The total amount of type metal standardized during the fiscal year 1940 was 11,163,926 pounds, an increase of 10.28 percent over the preceding year.

The following table gives in detail the various quantities of metal employed in the correction of the type metals to standard formulas.

		Universal	Electrotype
Returned for remelting.....	pounds..	10,261,376	904,040
Correction metal used:			
Lead-antimony alloy.....	do ..	20,199	4,795
Tin.....	do ..	6,579	634
Lead.....	do ..	60,954	71,724
Total.....	do ..	87,732	77,153
Total corrected metal	" ..	10,201,599	962,327
Dross.....	do ..	147,509	18,866

Increase due to correction...	percent..	0.86	8.53
Loss due to dross.....	do ..	1.44	2.09

During the year 16,000 pounds of tin, 25,000 pounds of lead-antimony alloy, 200,000 pounds of lead, 100,000 pounds of electrotype backing metal and 550,000 pounds of Universal metal were purchased by cash payment.

In addition, 135,000 pounds of electrotype backing metal and 320,000 pounds of Universal metal were bought, for which the following materials were bought, for which the following materials were accepted in part payment:

	Pounds
Old electrotype plates.....	210,226
Universal Metal Dross.....	169,827
Electrotype Dross.....	22,246
Electrotype Shells.....	19,004
Brass Rules.....	824
Brass Galleys.....	6,185
Copper (With 40% Wood).....	770
Zinc Plates (With 66% Wood).....	8,349

Press Rollers, Glues and Pastes

Press rollers numbering 5,866 manufactured during the year required 28,554 pounds of composition. Of the number manufactured this year 2,002 were mechanically coated. For this purpose 392 base rollers having a foundation of a tough and resilient composition over the steel core were purchased during the year.

Since the introduction of Sorbitol into roller composition formulas press rollers giving improved service have been produced. The use of this chemical compound in roller composition has been continued throughout the year.

Molded glue manufactured during the fiscal year totaled 142,575 pounds as compared with 122,699 pounds last year. The manufacture of glucose-glycol paste amounted to 29,000 pounds and of flour paste 97,000 pounds as compared with 23,000 and 95,000 pounds, respectively, last year.

Bookbinding Research

In cooperation with the Director of Typography research was conducted for the proper selection of cloth binding material to be used on a new United States Government passport. Various types of binding cloths were tested to determine their suitability for the special requirements of such a cloth and a report was rendered with specific recommendations. As a result of this work, and in cooperation with a book cloth manufacturer who furnished numerous special samples, a distinctive passport binding cloth was developed and accepted by the Department of State. This new bindery cloth will not only meet the usual requirements for durability, resistance to water and vermin, but will also show less tendency toward deterioration than the cloth previously used and will embody protective features against counterfeiting because of its special pattern, design and finishing.

The cooperation of this Division was also given to the Director of Typography in the problem of printing pyroxylin-impregnated cloth book covers by means of offset presswork, especially with respect to the use of halftone printing on the 1940 Agricultural Yearbook. A survey was made of commercial offset printing on book cloth covers, and with the cooperation of three leading book cloth manufacturers, a large number of samples of this type of work was gathered together with necessary information as to the type of presses used, manner of handling the stock and suitable printing ink. As a result of this investigation, some sample sheets of cloth were printed at the Government Printing Office in halftone by the offset process, and found to be satisfactory. A pyroxylin-impregnated cloth produced with a dull natural finish which would offer better "tooth" to the printing was finally selected as the most suitable for use on the Agricultural Yearbook.

This Division has been called upon to furnish adhesives of a special nature for use on several jobs in the bindery. Among these was an adhesive having a slight solvent action on mechanical plastic bindings, adhesives of both slow- and quick-drying types for sticking cellophane to cellophane, and others, such as thermoplastic cements, for specific uses.

In the Annual Report of the Public Printer for 1939, mention was made of the use of cellophane-backed gold, and aluminum stamping foil (leaves), but at that time, bronze roll leaf was found to tarnish quickly and was not recommended as being satisfactory. Since that time, the manufacturers have improved cellophane-backed bronze roll leaf, and the market is now offered grades which possess good resistance to tarnishing. The Government Printing Office specifications have therefore been modified to include a requirement for the purchase of cellophane-backed bronze roll leaf.

In line with the customary technical services to the various divisions of this Office, an investigation of the atmospheric conditions of the new Printing and Binding Divisions of the Library of Congress was made at the request of the Assistant Production Manager. A series of checks of the relative humidity by means of wet and dry bulb readings were made in the composing room, pressroom and bindery for six weekly intervals. Several reports were made in which certain changes were recommended in order to produce better and more comfortable working conditions in these air conditioned rooms. A recording hygrometer was installed in the pressroom section so that continuous daily records of the air conditions could be obtained.

Procurement of the best grade of tracing cloth for Government departments became a problem during the last year, because of some commercial grades of tracing cloth which meet specifications immediately after manufacture but which become opaque and inferior in quality after aging for only a few months. In order to protect the Government's interest, an accelerated aging test was devised for tracing cloth, and this test has been found to be a successful means for selecting the best grade of tracing cloth obtainable. This aging test supplements the requirements of Federal Specification CCC-C-531a and consists in determining the transparency of the cloth by means of the contrast ratio method. Permanent transparency in tracing cloth is very important, as it is often required that prints be made from tracings which are several years old. Formerly such master tracings frequently had to be redrawn at considerable additional cost before satisfactory prints could be obtained.

The Navy Department, War Department, and Procurement Division have adopted this additional requirement for their purchases of blank tracing cloth, so that all grades used by them in the future will show a permanent quality of transparency.

Cooperative research with the Employing Bookbinders of America and the Book Manufacturers' Institute, Inc., on a number of

problems devoted to bookbinding continued through the year. This research program has now been in operation for 11 years. During the past year the program was expanded to include many new phases of book manufacturing.

No changes in the formulas for flexible glues, as given in the Annual Report of the Public Printer for 1938 and 1939 have been found necessary during the year. The flexible glue, Formula L, developed in 1939 for large thick books has proved very satisfactory in respect to overcoming a tendency on the part of such books to crack along the backbone during the rounding and backing operations.

Mention has been made in a previous report of assistance given to a National Committee of textbook publishers, State textbook representatives, and textbook manufacturers engaged in preparing suitable specifications for the printing and binding of school textbooks. That assistance was continued during the year until final agreement was reached by all interested parties. Several states have already adopted the resultant specifications and others are about to adopt them in the near future.

Such assistance as was given during the previous year to the Roll Leaf Manufacturers' Association in investigating the causes of tarnishing of roll leaf imitation gold was continued.

The purpose of this cooperative investigation was to develop more satisfactory methods for determining the relative resistance to tarnishing of various brands of roll leaf. It was concluded that a heat test offered the best means of evaluating imitation gold leaf, being more satisfactory than the hydrogen sulphide gas-exposure method. Tests upon stampings were conducted at various temperatures and 105°C. was selected as the most suitable testing temperature. In making the test, stampings are made on various colors of either starch-filled or pyroxylin-treated fabrics in duplicate; one set exposed to the action of heat in an electric oven is examined at hourly intervals and compared with the unexposed control specimens to determine when tarnishing or discoloration begins. The relative resistance to tarnishing is determined by the number of hours of heat required to produce a distinct discoloration.

Cooperative research with the Bureau of Agricultural Chemistry and Engineering, United States Department of Agriculture, to develop more permanent bookbinding leathers has been continued. It has been shown in previous studies by the above Bureau that marked resistance to acid deterioration may be imparted to vegetable tanned leather by retanning with chrome to an extent that does not alter materially the characteristics of a vegetable tannage. This has been found to

invariably true with leathers experimentally tanned in the laboratory without dyeing and finishing. In order to obtain information concerning the permanence of completely finished commercial leathers of a vegetable-chrome retannage in comparison with that of the leathers experimentally retanned in the laboratory, special attention was given during the past 2 years to accelerated aging tests of bookbinding leathers purchased by the United States Government Printing Office.

These accelerated aging tests consist in exposing specimens of leather for from 12 to 18 weeks to the sulphur-bearing fumes produced by burning illuminating gas in a special chamber. At the end of this exposure, the leathers are again tested for their physical and chemical properties, and the results compared with tests made before exposure to fumes in the chamber. The degree of deterioration is estimated by loss in tensile strength. Some of the data thus obtained are presented in Table 1 in two groups representing commercial retanned leathers of high and low resistance. These results indicate that frequently commercial leathers of chrome retannage do not show the degree of permanence expected and are but little better in this respect than vegetable-tanned leathers. It appears that materials or processes may be employed in the commercial production of some leathers in such a way as to offset the added resistance imparted by chrome.

It is therefore evident that further research is necessary in order to develop a tannage which can be commercially applied to leathers to impart the desired degree of permanency equal to that obtained from laboratory tannages.

Because of an apparent analogy between chrome and alum tanning the Bureau of Agricultural Chemistry and Engineering has started a study of the effect of alum as a retanning agent upon the permanence of leather. Several possible advantages may be derived from the use of alum as a substitute for chrome, including (1) availability from domestic sources and at a lower cost in some cases; (2) elimination of a bluish or greenish cast frequently apparent and objectionable in the finished leather; and (3) aid in dyeing and finishing resulting from its mordanting action.

No difficulties have been encountered so far in the laboratory in retanning with alum. The leather thus retanned is of good quality and does not differ appreciably in appearance and feel from vegetable or vegetable-chrome tanned leather. For a study of the permanence of alum retanned leather as compared with chrome retanned and vegetable tanned leather, a set of leather was vegetable tanned in the laboratory. One lot of these leathers was left without further treatment to serve as the vegetable tanned control for comparison. Two lots were retanned with alum to contain respectively

about 1.5 percent and 3 percent aluminum oxide (Al_2O_3) and two lots were likewise retanned with chrome to contain respectively about 1.5 percent and 3 percent chromium oxide (Cr_2O_3).

The results of tests thus far obtained indicate that the alum retanned leathers show a high degree of resistance to deterioration. After 18 weeks exposure in the gas chamber the vegetable tanned leather lost 59 percent of its original strength and the chrome retanned leathers 25 percent and 33 percent as compared with 17 and 22 percent for the alum retanned leathers.

These studies are only of a preliminary nature and it is planned to elaborate upon them to include commercially produced vegetable tanned leathers retanned with alum to ascertain if equally permanent leathers can be gotten on a regular production basis.

Table I

Eighteen Hours Exposure in Gas Chamber

Commercial Vegetable-Chrome

Retanned Leathers

Sample	Percentage Loss in Tensile Strength
Group A — Leathers of High Resistance to Deterioration	
No. 37	28
No. 33	30
No. 2	48
No. 25	48
No. 30	49
Group B — Leathers of Low Resistance to Deterioration	
No. 8	70
No. 27	70
No. 28	71
No. 7	74
No. 13	81
No. 14	82
No. 39	88

Photoengraving and Electrotyping

The specifications for ferric chloride have been modified to obtain a more desirable strength to produce a deeper etch.

A study was made to determine the comparative merits with respect to dot undercutting of electric etching and the ferric cloride methods of etching copper halftone plates. Copper halftones etched by electric and ferric chloride etching methods were diagonally cut through their high-light areas and the corresponding segments mounted on edge in a matrix of sulphur. They were then ground, polished, and surface-etched suitably for photographic recording through a microscope. To show the dot structure more sharply through the microscope, the glue top enamel was first removed from the cop er segments, which were then electroplated with nickel, and over the nickel a heavy plating of copper was deposited. A series of photomicrographs of the cross sections of these specimens were made at magnifications varying from 75 to 150 times. The conclusion drawn from this work was that the electrical etching process showed no tendency toward undercutting action and was equal if not superior to the ferric chloride method in the uniformity of structure obtained.

A short lecture and demonstration course in electrodeposition of copper was given to apprentices of this Office interested in

electrotyping and stereotyping. The factors controlling the rate and quality of copper deposition from both theoretical and practical points of view were emphasized.

Assistance was given to the Platemaking Division during the year toward obtaining an adhesive which would securely cement electrotypes to metal bases. A thermoplastic cement was found suitable for this purpose. A film of the cement is applied by brush to the metal base. The solvent is then allowed to evaporate from the cement, which requires from 5 to 10 minutes. The metal plate is placed in contact with the cement; then heat, with slight pressure, is applied. The thermoplastic cement softens under the influence of heat, and upon being allowed to cool, securely fastens the plate to the metal base. This cement has proved very successful for this purpose.

Motor Gasolines and Lubricating Oils

Some difficulties were experienced with knocking in engines of delivery trucks, with rapid accumulation of carbon and corrosion of wrist pins.

The use of motor gasoline in the delivery trucks was discontinued in March and replaced with Motor Fuel V (Minimum Octane 70.) This is in line with the practice of other Government departments and is expected to show considerable improvement in operation

through reduction of carbon deposits and knocking resulting from cold engine operation.

As an additional corrective step, the installation of a thermostat on all trucks not now using them was recommended.

The specifications for lubricating oils used in the Office have been modified so that they are now purchased from the Navy Schedule instead of on the open market as formerly done. This provides good and uniform quality lubricating oils at lower cost and insures more prompt delivery.

Assistance to Other Departments

As in previous years, the division rendered valuable assistance to other Government departments, including Agriculture, Navy, Treasury, Commerce Post Office, Home Owners' Loan Corporation, and Veterans' Administration in solving many of their technical problems pertaining to paper, ink, type metal, glue, bookbinding materials, and various printing processes.

Contact with Printing, Binding and Allied Organizations

The Division of Tests and Technical Control has continued to maintain cooperative contacts with the Technical Association of the Pulp and Paper Industry, American Society for Testing Materials, American Standards Association, United Typothetae of America, American Newspaper Publishers' Association, Lithographic

Technical Foundation, Printing and Allied Trades Research Association of Great Britain and the Paper Makers' Association of Great Britain and Ireland.

Publications

An article entitled "Humidity Standards for Paper Testing" has been published in the Paper Industry and Paper World, Vol. 22, No. 1 (April 1940). Copies of this paper may be obtained gratis upon request.

Technical Bulletin No. 22, "Permanence and Durability of Paper" is now available and may be purchased from the Superintendent of Documents of the Government Printing Office for 15 cents per copy. Favorable comments have been received from technical experts concerning this bulletin.

Technical Correspondence

A wide variety of technical questions have been presented in letters from printers, bookbinders, and paper manufacturers and dealers. Suggestions based upon the experience of this Office have been supplied for the solution of their trade problems. That these helpful replies have been greatly appreciated by the printing and allied trade industries is indicated by the many letters of gratitude received by this Office for such assistance given during the past year. Many requests have also been made for technical bulletins and other publications which indicate an increasing interest in the scientific progress of the printing trades.

CONGRESSIONAL PRINTING

The Congressional Record during the fiscal year which covered the Second (Special) and the Third Sessions of the 76th Congress made a total of 15,868 pages. The 125 issues of the Third Session which were printed during the fiscal year averaged 109 pages per issue, which is the largest in the history of the Office. The largest Record during the year made 239 pages; the smallest, a single page.

The bill work for the session was Comparatively heavy, there being a total of 11,254 bill prints, ranging from a single sheet 7½ x 11 inches printed on both sides to a 741-page subcommittee print, the largest sub-committee print bill ever printed.

Hearings continued to be numerous; besides the 43 House and Senate appropriation hearings, making 21,024 printed pages as compared with a total of 20,645 pages for 1939, 348 other hearings were printed. The total number of pages of hearings was 90,011 pages.

The following statement gives a summary of Congressional work for the first Session of the 76th Congress:

Record:

Total pages.....	15,868
Senate.....	4,859
House.....	5,675
Appendix and miscellaneous.....	5,334

Bills:

Senate:

New bills.....	1,200
Joint Resolutions.....	98
Concurrent resolutions.....	23
Simple resolutions.....	107

House:

New Bills.....	2,608
Joint Resolutions.....	194
Concurrent Resolutions.....	48
Simple Resolutions.....	249

Total new bills.....	3,808
Total prints.....	11,254
Total bill forms.....	10,055

Reports:

Senate.....	1,223
House.....	1,687

Documents;

Senate.....	174
House.....	461

COMPOSING DIVISION

The year's work in the Composing Division has been the heaviest in the history of the Printing Office, 81,000 jackets being handled. During the year 2,381,762,000 ems of composition were set and made up by the Linotype and Monotype Sections, an increase of over 200,000,000 ems as compared with last year's production, and 1,038,606 folios of copy were prepared and read by the Proof Section, excluding Congressional work, Patent Office work, and the work for the Library of Congress. During the year the Hand Section imposed and sent to press 70,163 forms for the printing of document work.

The Plating Lock-up Section prepared 199,561 pages of type for electrotyping and stereotyping. The Job Section handled an additional 971 jackets over the preceding year, bringing the total to 43,196 jackets. There was a slight decrease in the number of patent specifications printed this year over last year but the number of pages contained therein was slightly larger. Patent specifications, designs, and trademarks handled during the year numbered 57,818. The number of pages in 1940 totaled 161,386 as compared with 158,906 in 1939.

The Official Gazette, issued weekly, made 15,632 type pages in 1940 as compared with 15,396 pages in 1939. The total number of copies of the Official Gazette and Annual Indexes printed in 1940, including copies for the Patent Office and those ordered by the Superintendent of Documents for sale, was 241,432 as compared with 233,038 in 1939.

PLATEMAKING DIVISION

During the fiscal year 1940 the Platemaking Division produced 18,410,278 square inches of plates and mats, as follows: Electrotypes, 6,933,969 square inches; stereotype plates, 6,491,475 square inches; stereotype mats, 2,094,429 square inches; rubber plates and stamps, 79,259 square inches; photoengravings, 860,887 square inches; and offset negatives, 1,950,259 square inches.

The plate vault handled 33,472 requests for plates. It released 595,990 pounds of stereotype metal and 236,420 pounds of electrotype metal for remelting, and 15,147 signatures of book plates were received for storage.

PRESSWORK DIVISION

The continued increase of work coupled with the task of moving to the new building presented many difficult problems during the year. Our standard of production was maintained by reason of the installation of new and speedier presses in the new building and the arrangement whereby the old presses traded in were utilized until after moving into the new quarters. As the year closes practically 90 percent of the Division has been moved.

Great progress has been made in our experiments during the past year with rubber-plate printing and the new process of cementing halftone cuts to wood and metal bases. Both of these experiments will be continued with a view to using rubber plates for the rougher classes of work, such as tags, envelopes, etc.; and the new process of cementing cuts in closer register for bleed jobs.

The Government Printing Office printed for the Departments and independent establishments 325,250,000 tabulating cards during the fiscal year 1940. A total of 2,362,000,000 postal cards was printed and 256,423,325 money-order blanks.

BINDING DIVISION

All economies as in previous years were continued and in some instances enhanced during the fiscal year 1940. To cite a few of them, a system of handling Census Portfolios was inaugurated that was largely instrumental in cutting the cost to approximately 50 percent of previous orders. The installation of a numbering device on stamping machines that allows the numbering of cases by machines, thereby eliminating hand work previously pursued in most instances, has shown a saving of approximately 30 percent. Another economy, instituted in the Book Section, which will prove itself one of considerable magnitude as shown in the short time it has been in effect, is the group method of doing work pertaining to the job, and library and edition hand binding of books produced in the Book Section.

The Agriculture Yearbook was again the outstanding order of hard bindings, numbering 247,067 volumes consisting of 38 double signatures, making a total of 8,388,546 signatures to be gathered, collated, and sewed on two tapes.

The Pamphlet Section has been an extremely busy one, especially toward the end of the fiscal year, when the National Defense Program was inaugurated, which released a flood of work that could not be accomplished in the regular working hours and necessitated this division and the Book Section to work extra hours in order to stay as near as possible to delivery dates as the demand called for.

The Congressional Record was larger than ever before, numbering 5,670,469 copies from September 21, 1939 to June 30, 1940.

STORES DIVISION

In the fiscal year 1940 the Stores Division received a total of 107,437,028 pounds of paper. Other materials received by the Division totaled 2,035,766 pounds, gross weight. This, in addition to the less-than-carload lots of paper, etc., received from various sources, would show a daily average of about 12 carloads handled by this division.

Some of the orders filled by the Stores Division were as follows: Standard forms, 27,824,827; office forms, 7,779,433; tabulating cards, 13,227,000; mimeograph ink, 185,204 pounds; printing ink, 251,524 pounds; stamp-pad and numbering-machine ink (2-oz.cans) 40,624 cans; and writing ink, 24,642 quarts.

The Stores Division is now hauling all paper from Warehouse No. 4 by means of trailers drawn by electric tractors, operating through the tunnel under North Capitol Street. The use of Mack trucks for this purpose has been discontinued, thereby eliminating three five-ton trucks and five drivers.

With the cooperation of the paper mills, the railroads, and the manufacturers of steel strapping, the amount of damage to paper in transit and loss of time in unloading has been very considerably reduced. Better results are obtained at less expense to the shipper by certain methods of strapping than by the use of timber for bracing. As a result, we have specified this type of bracing carload shipments in our proposal for the contract period beginning July 1, 1940.

LIBRARY OF CONGRESS

The following statement shows the production record for the Library Composing Section for the fiscal years 1938, 1939, and 1940:

	1938	1939	1940
Chargeable impressions.....	38,076,724	38,458,891	46,947,427
Actual impressions.....	2,785,473	3,311,205	6,231,521
Chargeable forms sent to press	9,272	10,660	15,058
Actual forms sent to press....	5,809	8,091	12,686
Subject headings--lines sent to press.....	127,617	186,272	207,679
Subject headings printed.....	382,851	558,816	623,037
Jackets written.....	1,041	975	1,166
Jackets closed out.....	1,065	971	1,155

DELIVERY SECTION

During the year this Division hauled as incoming freight 11,583 pounds of metal. Outgoing freight consisted of less-than-carload shipments of metal cores weighing 29,982 pounds. During the year we hauled by truck to the City Post Office 19 shipments of postal cards, totaling approximately 842,000 pounds.

Deliveries to various Departments and agencies totaled 219,231 partial and completed jobs, representing the finished product of the Office. This output of departmental work is the heaviest in the experience of this section. Our largest trucks hauled to the Documents Division location at 613 G Street, Northwest, 2086 carloads of printed matter.

The miles operated by our fleet of motor vehicles totaled 190,266 for the year. This fleet consists of 32 trucks and 3 passenger cars, including the car used by the visiting nurse.

The new addition to the loading platform is a great improvement. It has helped to relieve congestion in the Bindery and will enable this section to render a more efficient service.

ANNUAL REPORT OF THE SUPERINTENDENT OF DOCUMENTS

FOR THE FISCAL YEAR ENDED JUNE 30, 1940.

In the fiscal year ended June 30, 1940, the net cash receipts from sales amounted to $1,118,050, this being the first year that they exceeded a million. The printing of sales publications for this period cost $623,274.36, which amount was paid from the net receipts, and the remainder, $494,775.64, is available for deposit in the miscellaneous receipts.

The most important problem of this Office is to ascertain the best way in which to inform the public that the various units of their Government are engaged in fact-finding in every field of human endeavor which is of public concern, and that the results of their investigations are available through the publications of the Government Printing Office. We are constantly soliciting the aid of Government Departments to assist in popularizing their publications by offering to print sales announcements of those for which they believe there will be popular demand.

In the past year we printed an attractive poster displaying pictures of a number of popular publications and also announcing our free price lists. This poster was distributed to all Post Offices, to be placed on their bulletin boards. We are confident that it was the reason for some of the growth in business, although it was not possible to determine to what extent.

Our Weekly List of Selected United States Government Publications, in which the titles of new publications are arranged

alphabetically with a short description of their contents, has proved to be very popular. Each week we distribute more than 40,000 copies to persons who wish to keep posted on publications issued by the Government. In addition, thousands of sales announcements are distributed to appropriate mailing lists. This sales promotional work is showing excellent results, as shown by the following table:

COMPARATIVE STATEMENT OF ACTIVITIES, PUBLIC DOCUMENTS DIVISION

	FISCAL YEAR 1933	FISCAL YEAR 1940	INCREASE	PERCENT OF INCREASE
Letters of inquiry.....	205,705	329,931	124,226	60.3
Number of orders.....	481,295	786,463	305,168	63.4
Cash remittances.....	$616,655	$1,209,302	$592,647	96.1
Publications distributed for departments.....	49,297,052	68,602,659	19,305,607	39.1
Publications sold.....	8,255,490	18,439,879	10,184,389	123.3
Amount of Sales.....	$540,532	$1,118,050	$577,518	106.8
Number of publications received in library.....	36,047	46,459	10,412	28.8

The increase in salary appropriation for the period covered by the above table amounted to $150,000 or 27.2 percent, although our activities for the same period increased 73.8 percent. Congress has allowed $25,000 more for the year 1941, and we are requesting an increase of $50,000 for 1942. If this sum is allowed, the total increase in the appropriation would amount to $225,000 or 40.9 percent, which is a smaller ratio than the percentage of increase in business to 1940, which continues to show an increase.

The fact that the increase in appropriations for salaries and wages has not been comparable to the increase in our various operations is not because the existing personnel was sufficient. It was largely because we did not have sufficient room to accommodate a larger force. Additional employees are very much

needed in order to render prompt and satisfactory service, and before the appropriation for 1942 becomes available we shall be located in our new quarters, which provide more floor space.

EXHIBIT AT GOLDEN GATE INTERNATIONAL EXPOSITION
SAN FRANCISCO, CALIFORNIA

When the Golden Gate International Exposition was reopened on May 25, 1940, the Government Printing Office exhibit was one of those which were ready for display in the Federal Building. The exhibit consisted of selected Government publications, attractively displayed, and aroused much interest on the part of visitors. The total sales receipts from this booth amounted to $1,215.80 for 6,525 publications, and approximately 15,000 price lists were distributed.

COMPARATIVE STATEMENT OF SALES FOR LAST EIGHT YEARS

FISCAL YEAR	NUMBER OF ORDERS	NUMBER OF PUBLICATIONS SOLD	AMOUNT OF SALES
1933	481,295	8,255,490	$540,532.29
1934	496,215	10,459,964	594,007.64
1935	538,698	9,499,205	637,414.43
1936	548,848	8,832,162	680,725.69
1937	595,823	10,074,337	813,246.60
1938	697,970	11,546,273	845,779.15
1939	773,464	12,748,804	928,459.88
1940	786,463	18,439,879	1,118,050.54

The following statement shows Number of Publications on Hand, as of July 1, 1939, Number Received and Distributed during the Fiscal Year 1940, including Forms, and the Number of Copies on Hand June 30, 1940.

Department or

EXECUTIV

Executive Off
State
Treasury
War
Justice
Post Office
Navy
Interior
Agriculture
Commerce
Labor

FREE PUBLICATIONS RECEIVED AND DISTRIBUTED DURING THE FISCAL YEAR 1940

Department or Establishment	Copies of Publications On Hand July 1, 1939	Copies of Publications Received During Year	Forms Received During Year	Copies of Publications Distributed During Year	Forms Distributed During Year	Copies of Publications On Hand June 30, 1940
EXECUTIVE DEPARTMENTS						
Executive Office of the President	72,853	139,543	2,500	109,805	2,500	102,593
State	1,594	1,140	0	813	0	1,921
Treasury	41,303	1,795,063	0	1,669,470	0	167,896
War	133	1,950	0	1,741	0	342
Justice	0	303,547	0	303,547	0	0
Post Office	149,325	9,123,457	0	9,125,830	0	145,952
Navy	27,500	78,491	0	51,675	0	54,316
Interior	740,917	2,344,741	105,000	2,014,047	105,000	1,071,611
Agriculture	16,258,800	46,469,532	179,974,096	45,307,269	179,974,096	17,420,063
Commerce	1,209,906	1,082,517	5,235,150	1,425,297	5,235,150	869,126
Labor	1,342,115	5,403,466	2,102,546	3,879,018	2,102,546	2,866,563
INDEPENDENT OFFICES						
American Historical Association	5,637	4,000	0	4,361	0	5,276
Civil Aeronautics Authority	0	64,004	0	64,004	0	0
Civil Service Commission	0	52,480	0	52,480	0	0
Employees Compensation Commission	827	106,347	5,610,780	40,099	5,610,780	67,075
Federal Communications Commission	601	0	0	56	0	545
Federal Loan Agency	0	62,531	0	62,531	0	0
Federal Power Commission	2,227	0	0	0	0	2,227
Federal Reserve Board	657	0	0	0	0	657
Federal Security Agency	1,735,602	1,247,452	58,957,719	1,671,312	58,957,719	1,311,742
Federal Trade Commission	64,569	2,335	0	22,872	0	44,032
Federal Works Agency	22,234	1,750,596	347,483,787	1,755,589	347,483,787	17,241
General Accounting Office	0	950	0	931	0	19
Interstate Commerce Commission	73,649	1,295,681	0	1,295,681	0	73,649
National Advisory Committee for Aero.	13	431	0	444	0	0
National Archives	3,804	68,879	0	58,443	0	14,240
President's Committee on Adm. Mgmt.	9,864	0	0	9,864	0	0
Railroad Retirement Board	0	0	8,499,325	0	8,499,325	0
Smithsonian Institute	180,681	103,250	0	95,269	0	188,662
U.S. Tariff Commission	49,540	8,105	0	17,217	0	40,428
Veterans Administration	0	550	0	550	0	0
JUDICIARY						
U.S. Court of Customs & Patent Appeals	1,348	350	0	347	0	1,351
CONGRESSIONAL						
Bicentennial Commission	8,727	0	0	0	0	8,727
Congress	5,883	4,276	0	4,412	0	5,747
Government Printing Office	0	3,867	0	3,867	0	0
Library of Congress	600	14,609	0	15,207	0	2
Total	22,011,911	71,531,130	607,970,903	(1) 69,032,038	607,970,903	24,491,003
Superintendent of Documents	8,076,752	35,818,562	0	(2) 27,535,298	0	16,360,016
Grand Total	30,088,663	107,349,692	607,970,903	96,567,336	607,970,903	40,851,019

(1) This total includes 449,379 copies of departmental discarded obsolete publications, making total distribution, 68,602,659.

(2) This total includes 1,946,502 copies of Superintendent of Documents discarded obsolete publications, making total distribution, 25,588,796.

Total actual distribution of departmental and Superintendent of Documents publications is 94,191,455.

MONTHLY CATALOG

The Monthly Catalog of United States Public Documents constitutes a record of the publishing activities of the various branches of the Government. Publications are arranged in the catalog under the names of the departments or other agencies responsible for them, with the subordinate bureaus and offices listed under the department of which they form a part. Such an arrangement is desirable because it facilitates ascertaining just what publications each Government body is issuing each month. However, the person who is interested in a specific publication or subject rather than in the issuing office may have difficulty in locating it until the annual index appears, because he may have to guess under which issuing office to look, or even make a page-to-page search for the title or subject.

Because of this, there has been a rather insistent demand on the part of libraries that we issue an index to the Monthly Catalog more often than once a year. The Special Libraries Association at a recent annual meeting passed a resolution on this subject, which was sent to the Appropriations Committee, the Joint Committee on Printing, and the Public Printer. The Appropriations Committee was evidently impressed with the need for this index, since an increase in our appropriation has been granted to make it possible, beginning with the 1941 calendar year. The present plan is to issue a detailed subject index for each Monthly Catalog. The index cards from which these successive issues are printed will be cumulated and used in the compilation of the annual index.

DOCUMENT CATALOG

The Catalog of Public Documents of the 74th Congress and of all departments of the Government of the United States for the period of January 1, 1935 to December 31, 1936 will be distributed to depository libraries before the close of the present year. This twenty-third volume of the Document Catalog (Comprehensive Index) is the first to list both departmental and Congressional publications issued during the period covered by two calendar years instead of two fiscal years. It is the largest catalog thus far published by the Superintendent of Documents. It consists of 3,236 pages, 428 pages more than the 71st Document Catalog of 2,808 pages, which was the largest issued to date, and 530 more pages than the wartime catalog of the 65th Congress.

This increase in size is largely because of listing Government publications reproduced by duplicating processes other than printing and because the amount of this processed material has grown very rapidly. Another factor contributing to the increase in size is listing the publications issued by the very numerous emergency agencies of the United States Government.

SELECTIVE LIST FOR DEPOSITORY LIBRARIES

This office recognizes the need for a supplement to our Classified List of United States Government Publications Available for Selection by Depository Libraries. It is to be regretted that we have been unable to devote the necessary time to the preparation of such a list, and we hope to do so in the very near future. However, all new publications that are not definitely represented by items in the 1935 list are being distributed to the libraries under items representing similar classes of publications and we will at any time amend the selections of a library by adding any new items which they may designate.

DEPOSITORY LIBRARIES

There continues to be need for amendment of the laws providing for depository libraries. As stated in previous annual reports, it is important that there first be an investigation of these libraries to determine what use is now being made of the publications sent to them, which it is costing the Government approximately $100,000 a year to print.

The Chairman of the Committee on Public Documents of the American Library Association reports that because of a reduction in the appropriation for the National Resources Planning Board, this organization will not be able to participate in such an investigation. The American Library Association is still hopeful that some foundation may be persuaded to grant the funds necessary for the investigation, and assures us that it does not intend to drop the project but that progress is slow on account of the present world situation.

LEGISLATION

The First Report of the Interdepartmental Committee on Printing and Processing, submitted to the President February 24, 1940, contained a recommendation to amend the law which now provides for centralized mailing under the direction of the Public Printer. This law has been in operation for more than 35 years, which is ample time in which to discover its advantages and disadvantages.

It is well known that few, if any of the agencies strictly observe this statutory requirement. In fact, strict observance is impracticable. Many changes have taken place since the law in question was enacted, such as improved types of duplicating equipment and the need within departments and agencies for flexibility in adapting and supervising their own mailing so as to meet their own material needs. Such considerations have led them to provide themselves with equipment and personnel for mailing operations.

As the present arrangement is very unsatisfactory, it is believed that the present law should be amended to provide for the initial distribution of printed publications and forms by the Superintendent of Documents at the Government Printing Office; and for the occasional and subsequent mailing by the Departments and other establishments of the Government concerned. The several agencies of the Government should furnish the Superintendent of Documents, from time to time, mailing lists in convenient forms, and changes therein, or franked slips or envelopes for use in the distribution. When the distribution is completed, all remaining copies should be returned to the issuing office.

Such an amendent should also provide that any executive department, independent office, or establishment of the Government having copies of publications for free distribution may, when requested, and if a sufficient supply for the purpose exists, turn over copies to the Superintendent of Documents for sale by him in order to prevent reprinting. In order that the Superintendent of Documents may be advised of stocks of publications held by the executive departments, independent offices, and establishments of the Government, they should annually notify the Superintendent of Documents of the number of each publication available for free distribution.